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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/741,747	12/18/2000	Anujan Varma	UC2000-138-2	5584

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EXAMINER

MILLS, DONALD L

ART UNIT	PAPER NUMBER
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2662

DATE MAILED: 03/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/741,747

Applicant(s)

VARMA ET AL.

Examiner

Donald L Mills

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1-6, the claims specify a "feeding an actual or simulated first traffic source into a peak-rate shaper... recording points of loss" (See claim 1, lines 1 and 11.) However, a shaper based upon the peak rate, as opposed to the average as evident in the prior art, utilizes a corresponding buffer of equivalent size. Therefore, loss of traffic could not be observed because no traffic would be lost. Clarification of the term "peak-rate shaper" is requested.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1 and 3 are rejected under 35 U.S.C. 102(e) as being anticipated by Gringeri et al. (US 6,108,382), hereinafter referred to as Gringeri.

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Regarding claim 1, Gringeri discloses a method for transmission of video in an asynchronous transfer mode network:

Feeding an actual or simulated first traffic source into a peak-rate shaper and producing a new time sequence for the bit-stream of the traffic source (Referring to Figure 4, encoded variable bit rate video is received by VTRANS for shaping over averaging intervals (step 400). See column 6, lines 49-52.)

Feeding said first traffic source from the output of the peak-rate shaper, $a(r,t)$, into a server with deterministic rate ρ in the range $[0,r]$ where r is the peak rate of the shaper (Referring to Figure 4, VTRANS transmits the encoded variable bit rate MPETG-2 video over ATM network 130 based upon the average bit rate. See column 6, lines 61-63.)

Observing the dynamics of queue size $Q_{B,\rho}(r,t)$ (Referring to Figure 4, VTRANS identifies from the set of possible traffic parameters a combination of traffic parameters that is consistent with the traffic load in network 130, based upon the incoming rate of traffic.)

Recording points of loss wherein the maximum queue size $Q_{B,\rho}(r,t)$ exceeds the buffer size B which corresponds to the loss of the traffic source for rate ρ (Referring to Figure 4, VTRANS 230 selects the lowest effective bandwidth, the amount of bandwidth that network 130 allocates to a video stream in order to meet a pre-specified cell loss probability, corresponding to tracking cell loss due to buffer overflow. See column 8, lines 36-41.)

Regarding claim 3, Gringeri discloses *wherein the traffic source comprises data stream selected from the group of data streams consisting of multimedia data streams,*

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elementary video streams, and MPEG-2 transport streams (Referring to Figure 4, encoded variable bit rate video is received by VTRANS. See column 6, lines 49-52.)

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gringeri et al. (US 6,108,382), hereinafter referred to as Gringeri, in view of Derby et al. (US 5,274,625), hereinafter referred to as Derby.

Regarding claim 2 as explained above in the rejection statement of claim 1, Gringeri discloses all of the claim limitations of claim 1 (parent claim.) Gringeri does not disclose *plotting of loss points for various buffer sizes B to create a loss curve for the traffic source.*

Derby teaches a curve 41, which shows the relationship between packet loss probability and buffer length for an on/off, independent exponential distribution of burst and idle periods (See Figure 5.)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement graph of Derby in the system of Gringeri. One of ordinary skill in the art would have been motivated to do so in order to quickly characterize complex traffic utilizing a simplified process as taught by Derby (See column 2, lines 55-57.)

Allowable Subject Matter

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7. Claims 4-6 would be allowable if rewritten or amended to overcome the rejection under 35 U.S.C. 112, second paragraph, set forth in this Office action.

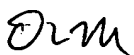
Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald L Mills whose telephone number is 703-305-7869. The examiner can normally be reached on 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 703-305-4744. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Donald L Mills



March 18, 2004



CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600